IN THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE NINTH CIRCUIT

No. 287

JOHN M. KLEIN,

Plaintiff in Error,

FILED

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CITY OF SEATTLE,

VS.

Defendant in Error.

Writ of Error to the Circuit Court of the United States, District of Washington, Northern Division.

BRIEF OF PLAINTIFF IN ERROR.

BYERS & BYERS, BATTLE & SHIPLEY, Attorneys for Plaintiff in Error.

METROPOLITAN PRINTING & BINDING CO., SEATTLE



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JOHN M. KLEIN,

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CITY OF SEATTLE,

Defendant in Error.

STATEMENT OF THE CASE.

On March 29, 1894, the plaintiff in error instituted his action against the City of Seattle, a municipal corporation of the State of Washington, by the filing of his bill of complaint, the substantive allegations of which are as follows:

That on the 13th day of September, 1881, he made application for a patent for pins for electrical insulators, and on April 20, 1884, letters patent No. 297,699 for said invention, in due form of law, were issued and delivered to plaintiff.

That from the time of the issuance of said patent, plaintiff vended to others the right to make and use the said improvement in pins for electrical insulators, to his great advantage and profit.

That defendant unlawfully, wrongfully and injuriously, and with the intent to deprive plaintiff of the royalties which he might and otherwise would have derived from the sale of rights to make and use said improvement in pins for electrical insulators, and without the license of plaintiff and against his will, made and caused to be made and used sundry specimens of said improvement and apparatus which contained and employed substantially the invention covered by said letters patent, in infringment of said exclusive rights secured to plaintiff to plaintiff's injury and damage in the sum of \$3,000, for which amount plaintiff asks for damages and costs of said action. (T. pp. 1–3.)

Defendant answered said complaint, the substantive portions of which answer are as follows:

A general traverse of a portion of the allegations of plaintiff's complaint.

Also an affirmative defense, alleging that plaintiff never stamped or marked, nor caused to be stamped or marked, as patented, any such device by him alleged to be patented; nor did he affix or cause to be affixed to any package, wherein one or more said alleged patented devices were inclosed, any mark or label containing any notice that said device was patented, and that plaintiff never notified defendant of his said patent, nor did defendant have notice, and that all pins then or previously used by defendant were used without any knowledge or information that any pins so used had been patented to plaintiff or other person, and that defendant had no knowledge or information of any claim on the part of plaintiff or other person until about the time of the institution of plaintiff's action.

For a second further defense, defendant alleged that in 1889 it entered into a contract with the California Electrical Works, whereby said corporation agreed to erect and put in operation, in the City of Seattle, an electrical fire alarm system, which contract by *mesne* assignments, was transferred to the Gamewell Fire Alarm Telegraph Company, which last named company erected and put in operation, under said contract, an electrical fire alarm system. and all material used in the construction thereof was purchased, made and installed by said company, including the pins for electrical insulators.

That thereafter defendant purchased from said last named company said electrical fire alarm system.

Also that in 1891 defendant entered into a contract with the Police Telephone and Signal Company, whereby the said company agreed to erect and put in operation an electrical police telephone and signal system in the City of Seattle, including pins for electrical insulators used for carrying the electrical wires of said system, which contract was carried out and fulfilled by said company, and that all pins for electrical insulators used in said system were purchased by said company from plaintiff.

That defendant was not using, nor had it at any time past used, made or caused to be used or made any pins for electrical insulators other than the pins placed in said two systems by the said two companies in erecting and establishing the electrical fire alarm and police telephone system, and all such pins for electric insulators which are now, or at any time in the past have been in use in said systems were purchased or made by the two several companies aforesaid at their own instance, and used by said companies in establishing the system so purchased thereafter by defendant.

For another affimative defense, defendant alleged that plaintiff, for the purpose of deceiving the public, the description and specification filed by him in the patent office were made to contain more than is necessary to produce the desired effect, and that the device patented to plaintiff was described in a printed publication prior to the supposed invention or discovery thereof by plaintiff, and that he was not the original and first inventor or discoverer of any material or substantial part of said patent, and that said patented device had been in public use and on sale in this country for more than two years before the application for a patent by plaintiff, and abandoned to the public. (T. pp. 13-14.)

Plaintiff for reply to said answer denied each of the allegations contained in said affimative defenses. (T. p. 14.)

A jury was waived in writing (T. p. 20) and the case came on duly for hearing before the Hon. C. H. Hanford, district judge who held (T. pp. 16–19) against defendant as to each of its affirmative defenses, but also held said patent "to be void for want of patentable novelty" and judgment was rendered by the court in favor of defendant and against plaintiff and awarded the costs of said action against plaintiff. (T. p. 32.)

The lower court duly made and entered findings of fact and conclusions of law (T. pp. 20-31), and to the conclusions of law plaintiff excepted.

A portion of the findings of fact made by the lower court which we consider material to an understanding of the argument and authorities hereinafter submitted may be summarized as follows :

On and for a long time prior and subsequent to September 13th, 1881, glass insulators, screw threaded on inside, were in common use in this country in electrical appliances, such as telegraphy, etc.

These insulators were and now are used for the purpose of attaching thereto the wires over which the electrical currents were conducted.

These glass insulators were and are used by attach-

ing the same to pins, which pins are attached to crossarms, and which cross-arms are attached to poles or other objects, and these form the means of conducting electrical currents either in telegraphy or in cities having fire alarms or police telegraph systems.

The pins mentioned above which were first used were ordinary screw wooden pins, upon which screw insulators were attached: such wooden pins were attached to cross-arms by boring a hole in the cross-arms and placing therein the opposite end of the wooden pin.

Wooden pins were for some places and purposes found objectionable, unsatisfactory and defective. They were weak and would not support long spans. without being of such size as to weaken the cross-arm, which in that case would not support the long span. In running the wire up and down steep inclines, they would in wet weather make a "short circuit" with the edge of the "petticoat" and "ground" the current. They afforded no method for overhead attachment. In lines where a slight interruption might cause great damage they were considered too unreliable. In places difficult of access, such as steeples, towers, etc., and in out of the way places, such as over the mountains and sparsely settled communities. the fact that they lasted but a comparatively short time, rendered them undesirable.

For the purpose of remedying the objections above stated to the wooden pin, numerous experiments were made by numerous persons prior to September 13th, 1881. Among the instruments devised and employed for remedying these objections there was prepared and used an iron pin smaller in circumference and otherwise than the wooden pin, to which iron pin there was attached a wooden screw-head, to which the insulator was attached in the same manner as the same was attached to the wooden pin. This screw-head was attached to the iron pin by boring a hole through the wooden screw-head and running the iron pin through the same.

Another device manufactured and used for remedying the defects in the wooden pin was by taking a piece of wood and driving the same into the glass insulator and boring the hole in the wood and forcing the iron pin therein—in other words the wood was used as a bushing.

Other pins were also used which were made by using as bushing or filling plaster of paris, cement, All of these pins were found objectionable rags, etc. for the reason that the insulator could not be detached therefrom without removing the pin from the crossarm, or other object; and furthermore, in removing the insulator from the pin the filling was liable to become broken, and also were found faulty when the same had to be placed in a downward or vertical position, for the reason that the bushing did not secure or firmly hold the insulator to the rod, as well as being difficult and laborious to remove the insulator from the bushing, and in instances where the insulators were broken it was found difficult and even impossible to affix other insulators to the bushing.

Another device for remedying the objections to the

wooden pin was an iron pin with an iron screw-head to which the insulator was attached. But the insulator would not fit exactly and satisfactorily upon the iron screw-head as upon the lead screw-head used in the Klein pin, and also the insulator was liable to be broken in screwing or fastening the same to the iron screw-head.

Plaintiff conceived the idea of making a mould in which was cast a leaden screw-head or thread, to be attached to the head of an iron pin, and when so attached to be used for the purpose of attaching the glass insulator. For the purpose of making the leaden screw-head attach firmly and securely to the iron pin, said iron pin was roughed with a cold chisel, and Klein also conceived the idea of casting the lead screwhead onto the iron pin, i. e., the iron pin was set in a mould and the moulton lead poured therein, so that the screw-head became firmly attached to the iron pin and at the same time a screw-head was formed. from which when necessary, the insulator could be removed by unscrewing the same.

On September 13th, 1881, plaintiff, John M. Klein, duly applied for a patent for the said pin for electrical insulators, and on the 29th day of April, 1884, there was issued by the United States of America letters patent to said Klein for said pin for electrical insulators for the term of seventeen years from the 29th day of April, 1884, a full description of which is found in the findings of fact of the lower court on pp. 25 to 28 of the transcript.

The lower court further found that the Klein pins

had been found to be useful for the purpose for which the same were patented and invented, and since the date of the issuance of said letters patent has been more commonly used than any other, and have so far supplanted the use of all iron pins, that none of the other of the said insulating iron pins are now in the market or being manufactured.

That Klein has vended to others the right to make and use the said pins to his great advantage and profit, and has sold and vended to the City of Portland, Oregon, and other cities, the right to make and use the pin patented to him as aforesaid.

The lower court further found that molten lead and other soft metals have been used a great number of years prior to September 13th, 1881, as a tie or bushing between iron and other hard metals and substances, and the use of lead for such purposes was for more than ten (10) years prior to September 13th, 1881, a matter of general and common knowledge, and wood, lead, gutta percha, cement, plaster of paris and rags, etc., have been used for bushing for a long period of time prior to September 13th, 1881.

Plaintiff in error duly excepted to each of the three conclusions of law made by the lower court (T. p. 31) and duly filed the following:

ASSIGNMENTS OF ERROR.

First. Because the court erred in the first conclusion of law made and entered herein, which conclusion of law is based upon the findings of fact made and entered in this cause and is as follows:

"That as the pin in controversy, patented to the

plaintiff, consists of the use of iron in the place of wood, as in the pin which was in use prior thereto, and lead in the place of rags, wood, cement, etc., for a filling, which were used prior thereto. and the process of making a firm union of the lead head and the iron pin, there is nothing in plaintiff's patent which amounts to an invention and the same did not involve the application of a new principle; that the pin here in controversy patented to the plaintiff is lacking in patentable novelty, and that the insulator pin in guestion is merely a mechanical device substituting one well-known element or equivalent for another to perform the same office in the same way, as hereinbefore stated, and I so conclude from a comparison of this patented pin with that of the prior pins in use above mentioned "

Second. Because the court erred in the second conclusion of law made and entered therein, based upon the findings of fact made and entered herein, which second conclusion of law is as follows :

"That letters patent, issued as aforesaid to John M. Klein, were issued improperly and without lawful authority and are invalid."

Third. Because the court erred in the third conclusion of law and entered upon the trial of this action, which third conclusion of law is as follows :

"That the defendant is entitled to a judgment against the plaintiff for its costs and disbursements herein, and that plaintiff take nothing by his action."

Fourth. Because the court erred in rendering and entering the judgment herein in favor of the defend-

ant and against the plaintiff, with costs and disbursements herein incurred, and further adjudging that plaintiff take nothing by his said action, etc., which judgment was entered herein on the —— day of November, 1895. (T. pp. 33-34.)

From said judgment plaintiff prosecuted this appeal (T. pp. 35-43) and the lower court made an order transmitting to this court, as a part of the transcript, all of the original exhibits referred to and mentioned in the said findings of fact, as necessary to a proper consideration and review of this case. (T. pp. 43-44.)

ARGUMENT.

We shall first contend that the reasons assigned by the learned trial judge that the patent here involved is lacking in patentable novelty. are not sufficient and are not supported by the authorities, and, after discussing the correctness of the holding of the lower court and the reasons assigned for holding the patent here involved as lacking in patentable novelty, we shall submit further and other propositions of law and argument, which we think will show the invention here involved possesses each and every of the requisites required by law to constitute the same a valid patent and to possess the qualities of patentable novelty.

The reasons given by the lower court in holding that said patent is lacking in "novelty or originality" (which terms were by the lower court used in the conclusions of law in and the opinion as synonymous) are found in the first conclusion of law hereinbefore quoted, coupled with the opinion of the court, found on pages 16 and 19 inclusive, of the transcript.

It may be well to discuss *seriatim* the propositions involved in said conclusions of law, as the reasons therein assigned and stated showing the lack of patentable novelty consist of several. The lower court held (Conclusion of Law I) "That as the pin in controversy, patented to the plaintiff, consists of the use of iron in place of wood which was used in the pin which was in use prior thereto and (lead) in the place of rags, wood, cement, etc., for a filling, which were used prior thereto, and the process of making a firm union of the lead head and the iron pin, there is nothing in plaintiff's patent which amounts to an invention and the same does not involve the application of a new principle."

From the above quotation it is apparent that two propositions are thereby presented, (1) the determination of the question whether the patent here involved embraces a new principle, and (2) whether the fact that iron in the place of wood, and lead in the place of rags, wood, cement, etc., for filling, tend to show the lack of novelty of the patent here involved.

(a) It is of no importance whatsoever in determining the patentability or novelty of any device or machine, whether it involves the application of a new principle or any principle, in the sense in which the word "principle," is used in the patent laws and decisions of this country. The application of an old principle to a new process, device or combination may be patentable. Furthermore, the patent here involved might be considered as being a process rather than a principle.

"It is generally said that a principle cannot be patented, but only the application of a principle, by which application a useful result is produced. So long as the principle is a mere item of knowledge and sometimes from its nature it must always remain such—no patent can be had, however brilliant and useful the discovery may be. * * * But if the principle discovered is harnessed, so to say, into some device or process, then, to that extent, it is transferred from science to the arts, or from the world of ideas to that of things and the application is patentable."

Merwin on Patentability of Inventions §§ 175, 176.

By the old methods employed, the instruments and appliances used, viz: the wooden screw-head, the iron screw-head, or pin, wherein cement, plaster. etc., were used as a bushing, were found deficient, objectionable and faulty in many particulars as specified in the findings of fact.

The means for the transmission of electrical currents embraced in the patent herein involved, is new in that pins covered by said patent had never previously thereto been used, as shown by said findings of fact. However, the patentability or novelty of an invention or discovery is not dependent upon whether a *new* principle is involved or an *old* principle. if the patented device or improvement has the essential requisites prescribed by § 4886 of the Revised Statutes of the United States. "That any person who has invented or discovered any new or useful art, machine, manufacture or composition of matter, or any new or useful improvement thereof * * * can obtain a patent therefor."

(b) The fact that the patented device here involved consists of iron in the place of wood, and lead in place of rags, wood, cement. etc., for a filling, and the process of making a firm union of the lead head and the iron pin, or, in other words, the substitution of the use of metal or material different from that previously used, does not operate or tend in the least to disprove the patentability or novelty of the invention.

But, upon the other hand, the substitution of a piece of metal even of the same size as that previously used, may frequently be and has been the subject of a patent. Much more is this true when the substituted metal involves a new mode of construction or develops new uses or properties which the old metal or material did not have.

That the pin here involved did possess a new mode of construction and had new uses and properties not possessed by the previous wooden or iron pins is abundantly shown by the findings of fact.

The wooden pins previously used being weak would not support long spans of electrical wires without being of such size as to weaken the cross-arms. The wooden pins would not answer the purposes when it was found necessary to run the electrical wires up or downsteep inclines. The wooden pins would "ground" the electrical current. They afforded no method for overhead attachment. They were not durable. (T. p. 22.)

The insulators could not be detached from the iron pin, whether the same had a screw head, or was affixed to the insulator with a bushing of cement, rags, or other substances, without great difficulty and the insulator was liable to be broken. They were faulty and defective when necessary to place them in a downward or vertical position. The insulator would not fit so exactly and satisfactorily upon the iron screwhead as upon the Klein pin, and the insulator was liable to be broken in affixing the same to the iron screw-head. (T. pp. 23-23.)

As to the pin here in controversy (the Klein pin) the lower court found (Findings of Fact XX) said pins "have been found to be useful for the purpose for which the same were patented and invented, as above stated, and since the date of the issuance of said letters patent have been more commonly used than any other of the said iron pins above mentioned, and have so far supplanted the use of all the iron pins above mentioned, that none of the other of the said insulating iron pins are now in the market or being manufactured so far as shown by the testimony."

"If the substitution involved a new mode of construction, or if it developed new uses and properties of the article made, it may amount to an invention. So also, where the excellence of the material substituted cannot be known beforehand, and where practice showed its superiority to consist not only in greater cheapness and in greater durability, but also in more efficient action, the substitution of a superior for an inferior material was held by Judge Nathaniel Shipman to amount to invention."

> Walker on Patents. § 29. Smith vs. Dental Vul. Co., 93 U. S., 486. Dalton vs. Nelson, 13 Blatch, 357.

That the Klein pin with the leaden screw-head has the quality of not only being a cheaper pin than any of the older pins mentioned, but of greater durability and more efficiency is fully shown by the findings of fact, and this being true, as shown by the above cited authorities, it possessed the requisite qualities of patentable novelty, and the fact that iron therein was used instead of wood as previously and a leaden head instead of a pin with an iron screw-head or a pin attached to the insulator with a filling of cement, rags, plaster, etc., under the well settled authorities, makes no difference.

II.

Another reason assigned by the lower court, as shown in the conclusions of law, for holding said patent lacking in novelty, was "that the pin in question is merely a mechanical device substituting one wellknown equivalent for another to perform the same office in the same way, as hereinbefore stated, and I so conclude from a comparison of this patented pin with that of the prior pins in use above mentioned."

(a) The Klein patent, we respectfully submit, is more than a mechanical device in the sense in which the term "mechanical device" is used in patent law or otherwise. The strongest and in fact the most conclusive consideration in determining whether an invention or device is or not a purely "mechanical device" is whether the device in question would immediately or readily be suggested to the mind to accomplish the desired end or purpose. The uncontroverted facts of this case disclose, as shown by the very findings of fact made by the lower court, that the objections and defects existing in the pins in use and known prior to the Klein pin, and the great lapse of time intervening between the first or original wooden pin and the various pins thereafter adopted and prior to the Klein pin for the purpose of overcoming the objections and defects of the original pin, such as the iron pin with the screw-head or the iron pin attached to the glass insulator with a filling of cement, rags, plaster, etc., conclusively and unmistakable prove that the defects of the prior pins remedied by the Klein pin would not and did not readily suggest to the mind of anyone a pin such as the pin in question. Hence, as to the question whether the Klein pin would readily suggest itself to the mind of anyone, we repeat is absolutely and conclusively negatived by the findings of fact made by the lower court, and this being true, it also inevitably follows that the Klein pin is not merely a "mechanical device."

The learned judge also in his opinion states the gist

of his reasons for holding the Klein pin lacking in novelty as follows:

"Now, all that can be claimed as the invention in this case is the combination consisting of the use of iron in place of wood for a pin, and lead in place of rags, wood or cement for a filling, and the process of making a firm union of the lead head and the iron pin: and it is my opinion that there is nothing in this that amounts to an invention. It seems to me that any person of intelligence directed to take an iron pin and a glass insulator and insert one in the other and make a firm union between the two, would discover that this was obviously a good method for doing that very thing."

We respectfully submit, however, that the very facts, as found by the lower court, conclusively establish that the Klein pin was not, even to those skilled in mechanical devices and appliances, readily suggested to the minds of those who were accustomed to use and make the different insulating pins in use prior thereto, nor was the same suggested to the mind of anyone, although the prior pins had been in use for many years, the objections and defects therein well known and numerous and multitudiuous efforts made to remedy such defects; yet, as shown by the facts of this case as found by the lower court, all of the antecedent and prior attempts to remedy such defects were faulty and inefficient until the Klein pin was invented.

The fact that iron was used in place of wood, and lead in place of rags, wood or cement for a filling, is in nowise material as a test in determining the patentable novelty of the device. For this test would absolutely preclude the possibility of an invention, because the material to be used in such invention may have been previously used, or simply because one material is substituted for another, when, under the authorities, the very fact of the substitution, especially of a different form or shape, may and does form the very ground work of an invention.

"But, if a particular result was long desired and some time sought but never attained, want of invention cannot be predicated of a device or process which first reached that result, on the ground that the simplicity of the means is so marked that many believe they could readily have produced it if required.

"That is the opinion of many relevant to some real invention, because solved problems often seem easy to persons who could never have solved them, and true inventions sometimes seem obvious to persons who could never have produced them. This doctrine does not contradict that of the last section; it only teaches us that the fact upon which the doctrine of the last section is predicated cannot be proven by a *posteriori* opinion, when that opinion is consistent with *a priori* attempts and failures."

Walker on Patents, § 26.

Judge Blatchford in speaking of what constitutes a mere mechanical device says:

"The invention consists primarily in finding out what mechanical operation is necessary to produce the practical result arrived at. When such operation is hit upon, the mechanical work is easy. It is easy, when the mechanical operation is seen, to say that it was obvious that certain mechanical arrangements would effect it: but mechanical arrangements are tried and tried in vain to reach a practical result, because the mechanical operation which is to effect such result is not yet seen. In looking at the completed thing, the mechanical operation is there: but the inventor, though he knew all about cams and levers and other mechanical arrangements, did not have in advance before him the coveted mechanical operation. * * *"

Wooster vs. Blake et al., 8 Fed. 429.

(b) Is the Klein pin a well-known equivalent for any other pin, as held by the lower court, or does it perform the same functions in the same way?

The doctrine of equivalents is defined as follows:

"If we were to state the matter more exactly, we might say perhaps that by equivalent in the patent law is meant something commonly known by those skilled in the art to which it belongs as capable of being used interchangeably with that of which it is said to be the equivalent * * *"

Merwyn on Patentability of Inventions. p. 64.

Tested by this rule, we respectfully submit that the Klein pin is not the equivalent of any of the prior pins in use and mentioned in the findings of fact. None of such prior pins are cabable of being used interchangeably with the Klein pin. Neither of the pins in prior use is the equivalent of the Klein pin, either in the results accomplished or the form and shape of the material used. Furthermore "a new combination, if it produces new and useful results is patentable, though all of the constituents of the combination were well known and in use before the combination was made. A new combination of known devices, producing a new and useful result, as that of greatly increasing the effectiveness of the machine, may be the subject of an invention and is patentable.

> Webster Loom Co. vs. Higgins, 105 U. S., 580.

> Hailes vs. Van Wormer, 20, Wall, 353. Smith vs. Dental Vul. Co., 93 U. S., 486.

III.

The lower court, in the opinion rendered, in speaking of plaintiff's contention that the general utility of the patented article which caused it to go into general use and supplant all other methods is proof of invention, says:

"But the proof here is that wooden pins are still in use, and this new contrivance has only been used to a limited extent, and that there is no such special utility in it, that it has supplanted the old methods."

Under certain circumstances and conditions, the fact that the new invention has not supplanted other devices, defects in which it was thereby intended to remedy, would be no test at all of non-patentability, for the reason that the license or royalty required to be paid for the use of the patented article would not be necessary for the use of an unpatented article or device which has been in previous use; and this is true also for other obvious reasons.

Furthermore, the Klein pin, was primarily intended to remedy the defects existing in the *iron* pins in use prior thereto, and hence the fact that the old wooden pin is still in use, as stated by the lower court is no reason for holding the lack of novelty in the Klein pin: for generally, and we might say invariably, the older and prior machine, device or process is not wholly supplanted in its use by a patented improvement thereon, especially as applied to this particular case where a wooden pin is not used in making long spans or where it is necessary to place the same in a downward or vertical position.

However (and this is the only important question in this action), the Klein pin has remedied all of the defects and objections which existed in the pins in use prior thereto, and, as found by the lower court (Finding XII, T. p. 28), it is there stated "That the said pins patented to the said Klein as aforesaid have been found to be useful for the purpose for which the same were patented and invented as above stated, and since the date of the issuance of said letters patent have been more commonly used than any other of the said pins above mentioned, that none of the other of the said insulating iron pins are now in the market or being manufactured so far as shown by the testimony."

Hence, as the Klein pin possesses the utility found by the lower court and has in fact supplanted the iron pin for which it was primarily intended as a substitute, this fact alone as found by the lower court should be controlling under the authorities to establish the patentability and novelty of the pin in question.

"If, by a slight change, an improvement is made that amounts to a decided advance in some art or industry, the courts look upon it with favor, and they find invention in it if they can; especially is this so if the improvement effects a result which has long been desired, which many minds have striven for without In such a case, the great utility of the im-SUCCESS. provement, coupled with the difficulty which has attended its production, raises a presumption that invention was required to bring it forth. This is a fair conclusion; for if the improvement required only 'mechanical skill,' why was it not made before? When once the change is made, it seems indeed a perfectly obvious one-a natural inference: but the fact that many minds have been directed to the subject and have not drawn the inference, is strong evidence, at least, that it was not a natural inference; that invention was required to make it." 57

Merwin on Patentability of Inventions, p. 39.

"The successful result, and the fact that previous experimentors wanted to obtain the result, but failed, lead to the conclusion that the patentee was not merely contending with mechanical difficulties, but that he had a problem which required the skill of the inventor to solve."

Terry Clock Co. vs. New Haven Clock Co., 4 Bann. and Ard., 121.

Where prior devices fail to come into practical use and the later device does come into extensive practical use, these facts are strong evidence of the sufficiency of invention in the patented machine.

> Weston et al. vs. Nash et al., 2 Bann. and Ard., 40.

IV.

We have heretofore undertaken to show that the reasons assigned by the lower court in holding that the Klein pin was lacking in patentable novelty or invention, are untenable, and we now respectfully submit other arguments and and authorities which we think clearly establish the novelty and patentability of said Klein pin.

We submit that under the findings of fact, the utility of the patent here in question is placed beyond any doubt, in fact it slearly appears from such findings that the defects and objections existing in prior pins were thereby remedied, after numerous and various experiments made by those who dealt in and sought to remedy the defects in the prior pins.

"When the other facts in the case leave the question of invention in doubt, the fact that the device has gone into general use and has displaced other devices which had previously been employed for analgoous uses, is sufficient to turn the scale in favor of the existence of the invention."

Krementz vs. S. Cottle Co., 148 U. S., 556.
Con. Brake Shoe Co. vs. Detroit Steel & S.
Co., 47 Fed., 894.

"It is not easy to draw a line that separates the ordinary skill of a mechanic, versed in his art, from the exercise of patentable invention, and the difficulty is especially great in the mechanical arts, where the successive steps of improvements are numerous, and where the changes and modifications are introduced by practical mechanics. In the present instance, however, we find a new and useful article with obvious advantages over previous structures of the kind * * *"

Krementz vs. Cottle Co., (supra.)

V.

"The defense of lack of utility is totally irreconsibile with the use of the invention by defendant."

Gray et el vs. James et al., 1 Peters C C 394.

"The fact that a patent has been infringed by defendant is sufficient as against it to establish its utility."

Lehnebeuter vs. Halthaus, 105 U. S., 94.

VI.

The lower court found (Findings of Fact XVI, T. p. 29) "That from the time of the issuance of said letters patent to the plaintiff, he has vended to others the right to make and use the said improvement in pins for electrical insulators to his great advantage and profit, and has sold and vended to the city of Portland, Oregon, and other cities, the pin patented to himself as aforesaid, and has also licensed other cities to manufacture and use the said patented pin."

We submit that independent of the reasons herinbefore stated, the utility of the patent in question, the fact that it has remedied defects in prior pins not overcome or remedied prior to the Klein pin, that no person or corporation had called in question, previous to the city of Seattle, the novelty or patentability of said invention, that Klein had vended to others the right to make and use said pin, to his great advantage and profit, and that for over ten years no person or corporation had called in question the patentability of said invention and it was never, so for as appears, called in question, except by the defendant in this case, are facts sufficient to sustain the validiiy and novelty of said patent.

That patent was issued by the Patent Office, after a determination by those skilled in the arts and sciences and invention, is sufficient to overcome any doubt as to the novelty of the pin involved.

"The burden of proof of want of novelty rests upon him who avers it, and every reasonable doubt should be resolved against him. It follows from this declaration of the Supreme Court, and has been expressly decided by several Circuit Courts, that novelty can only be negatived by proof which puts the fact beyond a reasonable doubt. Under this rule, a patent enjoys the same presumption of novelty that an unconvicted prisoner does of innocence. Unlike most civil titles, it is not liable to be overthrown by mere preponderance of evidence, # # #"

Walker on Patents, § 76.

VII.

Independent of the arguments and considerations hereinbefore advanced and independent of the fact which is of controlling importance that numerous attempts were made in vain to make or discover a pin which would remedy the defects and objections of the prior pins, both wooden and iron, we submit that, as an abstract proposition, the conception of Klein in running molten lead into a mold, while the head of the pin is held therein, thereby creating a firm union of the lead to the iron, together with the conception of an enlarged head of lead of soft metal upon it, with a thread to fit the inside of the glass insulators, which are made with a spiral grove for screwing unto the screwhead, did involve inventive genius and novelty.

The iron pin with the screwhead was subject to several fatal objections as compared with the Klein pin, which have a leaden screwhead. The use of lead as a screwhead to overcome the objections not only of the wooden pin, but of the iron pin with the iron screwhead, involved necessarily inventive genius, for the reason that not only thereby was a pin formed which had the strength and durability of the iron pin with the iron screwhead, but also involved the use of a metal, viz: lead, which was attached to the iron pin so as not to detract in anywise from the strength or durability of the iron, but also involved the idea of the use of lead instead of iron, which possesses qualities as an insulating pin not possessed by the iron pin.

The expansibility of iron is less than lead. but at the same time its tensile strength, being much greater, the expansion of iron by heating would break and destroy the glass insulator: while, when the lead would expand, the tensile strength of the glass being greater than the lead, it would conform to the interior of the glass insulator.

If this is not invention, such as would not readily suggest itself to the mind of anyone the question is naturally presented why did not those who used the iron and other pins and who used lead as a bushing for many years, conceive the idea of the Klein pin ?

We respectfully submit that the decision of the lower court should be reversed and that the lower court be directed to assess plaintiff's damages.

Respectfully submitted,

BYERS & BYERS, BATTLE & SHIPLEY, Attys for Plaintiff in Error.